



Form PTO-1449

**INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION**

(Use several sheets if necessary)

ATTY. DOCKET NO.  
0020-5147PAPPLICATION NO.  
10/609,402APPLICANT  
Yoshinori SHIMIZU et al.FILING DATE  
July 1, 2003GROUP  
2879**U.S. PATENT DOCUMENTS**

| EXAMINER<br>INITIAL | DOCUMENT NUMBER | Kind | DATE       | NAME | CLASS | SUB<br>CLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|-----------------|------|------------|------|-------|--------------|-------------------------------|
| <i>JW</i>           | US 6,004,001    | A    | 1999-12-21 | Noll |       |              |                               |
|                     | US              |      |            |      |       |              |                               |
|                     | US              |      |            |      |       |              |                               |
|                     | US              |      |            |      |       |              |                               |
|                     | US              |      |            |      |       |              |                               |
|                     | US              |      |            |      |       |              |                               |
|                     | US              |      |            |      |       |              |                               |
|                     | US              |      |            |      |       |              |                               |
|                     | US              |      |            |      |       |              |                               |
|                     | US              |      |            |      |       |              |                               |

**FOREIGN PATENT DOCUMENTS**

|  | Office | DOCUMENT<br>NUMBER | Kind | DATE | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION |    |
|--|--------|--------------------|------|------|---------|-------|--------------|-------------|----|
|  |        |                    |      |      |         |       |              | YES         | NO |
|  |        |                    |      |      |         |       |              |             |    |
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|  |        |                    |      |      |         |       |              |             |    |

**OTHER DOCUMENTS**

(Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)

|           |   |
|-----------|---|
| <i>JW</i> | P. Schlouer et al. "Luminescence Conversion of Blue Light Emitting Diodes", Applied Physics Letter, vol. 46, p. 417-418, February 1997.                           |
| <i>JW</i> | M.F. YAN et al., "Preparation of Y3Al5O12-Based Phosphor Powders, J. Electrochem. Soc., Vol. 134, No. 2, Feb. 1987.   |
| <i>JW</i> | "Proceedings of the Institute of Phosphor Society", Translation of pages 1, 5 to 14 of the 264th Proceedings of the Institute of Phosphor Society, Nov. 29, 1996. |
| <i>JW</i> | Shigeo SHIONOYA et al. (editors), "Phosphor Handbook", pp. 505-508, CRC Press, 1999.<br>no month  |
| <i>JW</i> | E.F. GIBBONS et al., "Some Factors Influencing the Luminous Decay Characteristics of Y3Al5O12:Ce3+", J. Electrochem. Soc., Vol. 120, No. 6, June 1973.            |
| <i>JW</i> | D.J. ROBBINS et al., "Lattice Defects and Energy Transfer Phenomena in Y3Al5O12:Ce3+", pp. 1004-1013, printed June 19, 2001.                                      |

EXAMINER

*Joseph W. Williams*

DATE CONSIDERED

*3/5/05*

EXAMINER: Initial if citation considered, whether or not citation is in conformance with 37 C.F.R. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

10/609,402

Sheet 1 of 8 (6/26/03)

|   |                               |  |
|---|-------------------------------|--|
| Form PTO-1449   | ATTY DOCKET NO.<br>0020-5147P | APPLICATION NO.<br>New-Rule 53(b)<br>Div. of<br>09/458,024 |
| <b>INFORMATION DISCLOSURE CITATION<br/>IN AN APPLICATION</b><br>(Use several sheets if necessary) |                               |  |
| APPLICANT<br>Yoshinori SHIMIZU et al.   |                               |  |
| FILING DATE<br>July 1, 2003   |                               | GROUP<br>2879  |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL | DOCUMENT NUMBER | Kind | DATE       | NAME            | CLASS | SUB<br>CLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|-----------------|------|------------|-----------------|-------|--------------|-------------------------------|
| <i>an</i>           | US 3,652,956    |      | 1972-03-28 | Pinnow et al.   |       |              |                               |
| <i>an</i>           | US 4,314,910    |      | 1982-02-09 | Barnes          |       |              |                               |
| <i>an</i>           | US 5,006,908    |      | 1991-04-09 | Matsuoka et al. |       |              |                               |
| <i>an</i>           | US 5,369,289    |      | 1994-11-29 | Tamaki et al.   |       |              |                               |

## FOREIGN PATENT DOCUMENTS

|           | Office | DOCUMENT<br>NUMBER | Kind | DATE       | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION |    |
|-----------|--------|--------------------|------|------------|---------|-------|--------------|-------------|----|
|           |        |                    |      |            |         |       |              | YES         | NO |
| <i>an</i> | JP     | 59-30107           | U    | 1984-02-24 | JAPAN   |       |              |             | X  |
| <i>an</i> | JP     | 7-32638            | U    | 1995-06-16 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 01-257993          | A    | 1989-10-16 | JAPAN   |       |              | ABS         |    |
| <i>an</i> | JP     | 01-260707          | A    | 1989-10-18 | JAPAN   |       |              | ABS         |    |
| <i>an</i> | JP     | 02-111922          | A    | 1990-04-24 | JAPAN   |       |              | ABS         |    |
| <i>an</i> | JP     | 05-142424          | A    | 1993-06-11 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 06-160635          | A    | 1994-06-07 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 06-027327          | A    | 1994-02-04 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 06-82633           | A    | 1994-03-25 | JAPAN   |       |              | X           |    |

## OTHER DOCUMENTS (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.)

|           |  |
|-----------|--|
| <i>an</i> | "White LED lamp: Efficient light-emitting; Manufacture cost half", Nikkei Sangyo Shimbun, September 13, 1996, Published by Nihon Keizai Shimbunsha.                                  |
| <i>an</i> | Shuji NAKAMURA, "InGaN/AlGaIn blue-light-emitting diodes", J. Vac. Sci. Technol. A 13(3), May/Jun 1995, pp.705-710.  |
| <i>an</i> | Shuji NAKAMURA et al., "Si-Doped InGaIn Films Grown on GaN Films", Jpn. J. Appl. Phys. Vol. 32 (1993), pp. L16-L19, Part 2, No. 1A/B, 15 January 1993.                               |
| <i>an</i> | Shuji NAKAMURA et al., "P-GaN/N-InGaIn/N-GaN Double-Heterostructure Blue-Light-Emitting Diodes", Jpn. J. Appl. Phys. Vol. 32 (1993), pp. L8-L11, Part 2, No. 1A/B, 15, January 1993. |
| <i>an</i> | Shuji NAKAMURA, "Zn-doped InGaIn growth and InGaIn/AlGaIn double-heterostructure blue-light-emitting diodes", Journal of Crystal Growth, 145 (1994), pp. 911-917. <i>no month</i>    |
| <i>an</i> | Shuji NAKAMURA, "High-Power InGaIn/AlGaIn Double-Heterostructure Blue-Light-Emitting Diodes", IEDM 94 (1994), IEEE, pp. 567-570. <i>no month</i>                                     |
| <i>an</i> | Kozo OSAMURA et al., "Preparation and optical properties of Ga <sub>1-x</sub> In <sub>x</sub> N thin films", Journal of Applied Physics, Vol. 46, No. 8, August 1975, pp. 3432-3437. |

|   |                           |
|---|---------------------------|
| <i>an</i>   | DATE CONSIDERED<br>3/5/05 |
| EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.S.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                           |

ADM/EHC/mua

10/609402

Sheet 2 of 8 (6/26/03)

Form PTO-1449

ATTY DOCKET NO.  
0020-5147PAPPLICATION NO.  
New-Rule 53(b)  
Div. of  
09/458,024INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

(Use several sheets if necessary)

APPLICANT  
Yoshinori SHIMIZU et al.FILING DATE  
July 1, 2003GROUP  
2879

## U.S. PATENT DOCUMENTS

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|---------------------|-----------------|------|------|------|-------|--------------|-------------------------------|
|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |

## FOREIGN PATENT DOCUMENTS

|           | Office | DOCUMENT<br>NUMBER | Kind | DATE       | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION |    |
|-----------|--------|--------------------|------|------------|---------|-------|--------------|-------------|----|
|           |        |                    |      |            |         |       |              | YES         | NO |
| <i>an</i> | JP     | 07-114904          | A    | 1995-05-02 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 07-235207          | A    | 1995-09-05 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 53-7153            |      | 1978-01-21 | JAPAN   |       |              |             | X  |
| <i>an</i> | JP     | 7-42152            | U    | 1995-07-21 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 55-4898            | A    | 1980-01-14 | JAPAN   |       |              |             | X  |
| <i>an</i> | JP     | 55-005533          | A    | 1980-01-16 | JAPAN   |       |              | ABS         |    |
| <i>an</i> | JP     | 60-185457          | A    | 1985-09-20 | JAPAN   |       |              | ABS         |    |
| <i>an</i> | JP     | 62-20237           | A    | 1987-01-28 | JAPAN   |       |              |             | X  |
| <i>an</i> | JP     | 62-232827          | A    | 1987-10-13 | JAPAN   |       |              |             | X  |

## OTHER DOCUMENTS

(Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

|           |  |
|-----------|--|
| <i>an</i> | Takashi MATSUOKA et al., "Growth and Properties of a Wide-Gap Semiconductor InGaN", Optoelectronics-Devices and Technologies, Vol. 5, No. 1, pp.53-64, June 1990.  |
| <i>an</i> | T. NAGATOMO et al., "Ga <sub>1-x</sub> In <sub>x</sub> N Blue Light-Emitting Diodes", Proc. Electrochem. Soc., 1993, Vol. 93-10, pp. 136-141. <i>no month</i>  |
| <i>an</i> | G. BLASSE et al., "Investigation of Some Ce <sup>3+</sup> -Activated Phosphors", Journal of Chemical Physics, Vol. 47, No. 12, 15 December 1967.   |
| <i>an</i> | W.W. HOLLOWAY, Jr. et al., "On The Fluorescence of Cerium - Activated Garnet Crystals", Physics Letters, Vol. 25A, No. 8, 23 October 1967, pp. 614-615.  |
| <i>an</i> | E.F. GIBBONS et al., "Some Factors Influencing the Luminous Decay Characteristics of Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Ce <sup>3+</sup> ", J. Electrochem. Soc., Vol. 120, No. 6. <i>1973 no month</i> |
| <i>an</i> | W.J. MINISCALCO et al., "Measurements of Excited-State Absorption in Ce <sup>3+</sup> :YAG <sup>a</sup> ", J. Appl. Phys. Vol. 49, No. 12, December 1978, pp. 6109-6111.   |
| <i>an</i> | D.J. ROBBINS et al., "Lattice Defects and Energy Transfer Phenomena in Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Ce <sup>3+</sup> ", pp. 1004-1013. <i>2001 no month</i>                                       |

|                                    |                                  |
|------------------------------------|----------------------------------|
| EXAMINER<br><i>Joseph W. Allen</i> | DATE CONSIDERED<br><i>3/5/05</i> |
|------------------------------------|----------------------------------|

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ADM/EHC/mua

10/609402

Sheet 3 of 8 (6/26/03)

Form PTO-1449

# INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(Use several sheets if necessary)

ATTY DOCKET NO.  
0020-5147P

APPLICATION NO.  
New-Rule 53(b)  
Div. of  
09/458,024

APPLICANT  
Yoshinori SHIMIZU et al.

FILING DATE  
July 1, 2003

GROUP  
2879

## U.S. PATENT DOCUMENTS

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|---------------------|-----------------|------|------|------|-------|--------------|-------------------------------|
|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |
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|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |

## FOREIGN PATENT DOCUMENTS

|           | Office | DOCUMENT<br>NUMBER | Kind | DATE       | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION |    |
|-----------|--------|--------------------|------|------------|---------|-------|--------------|-------------|----|
|           |        |                    |      |            |         |       |              | YES         | NO |
| <i>an</i> | JP     | 01-189695          | A    | 1989-07-28 | JAPAN   |       |              | ABS         |    |
| <i>an</i> | JP     | 07-120754          | A    | 1995-05-12 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 06-177423          | A    | 1994-06-24 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 7-99345            | A    | 1995-04-11 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 09-027642          | A    | 1997-01-28 | JAPAN   |       |              | X           |    |
| <i>an</i> | JP     | 05-63068           | U    | 1993-08-20 | JAPAN   |       |              | X           |    |
| <i>an</i> | EP     | 0 209 942          | A1   | 1987-01-28 | EPO     |       |              |             |    |
| <i>an</i> | EP     | 0 541 373          | A2   | 1992-11-05 | EPO     |       |              |             |    |
| <i>an</i> | EP     | 0 599 224          | A1   | 1994-06-01 | EPO     |       |              |             |    |

## OTHER DOCUMENTS

(Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)

|           |   |
|-----------|---|
| <i>an</i> | M.F. YAN et al., "Preparation of $Y_3Al_5O_{12}$ -Based Phosphor Powders, J. Electrochem. Soc., Vol. 134, No. 2. 1985 no month  |
| <i>an</i> | "Nichia Chemical starts the sample shipment of white light emitting diode", News Report, translation of page 15 of Nikkei Electronics 1996.9.23 (No. 671).                |
| <i>an</i> | "Proceedings of the Institute of Phosphor Society", Translation of pages 1, 5 to 14 of the 264 <sup>th</sup> Proceedings of the Institute of Phosphor Society. 11/29/1996 |
| <i>an</i> | Shigeo SHIONOYA et al. (editors), "Phosphor Handbook", pp. 505-508, CRC Press. 1999 no month  |

EXAMINER

*Joseph C. Lin*

DATE CONSIDERED

3/5/05

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Sheet 4 of 8 (6/26/03)

|  |                                       |  |
|--|---------------------------------------|--|
| Form PTO-1449<br><br><b>INFORMATION DISCLOSURE CITATION<br/>IN AN APPLICATION</b><br><br>(Use several sheets if necessary) | ATTY DOCKET NO.<br>0020-5147P         | APPLICATION NO.<br>Rule 53(b)<br>Div. of<br>09/458,024 |
|  | APPLICANT<br>Yoshinori SHIMIZU et al. |  |
|  | FILING DATE<br>July 1, 2003           | GROUP<br>2879  |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL                          | DOCUMENT NUMBER | Kind | DATE       | NAME               | CLASS | SUB<br>CLASS | FILING DATE<br>IF APPROPRIATE |
|--|-----------------|------|------------|--------------------|-------|--------------|-------------------------------|
| AW<br>AW<br>AW<br>AW<br>AW<br>AW<br>AW<br>AW | US 4,727,283    |      | 1988-02-23 | van Kemenade et al |       |              |                               |
|  | US 4,298,820    |      | 1981-11-03 | Bongers et al.     |       |              |                               |
|  | US 3,699,478    |      | 1972-10-17 | Pinnow et al.      |       |              |                               |
|  | US 5,798,537    |      | 1998-08-25 | Nitta              |       |              |                               |
|  | US 5,202,777    |      | 1993-04-13 | Sluzky et al.      |       |              |                               |
|  | US 3,819,974    |      | 1974-06-25 | Stevenson et al.   |       |              |                               |
|  | US 5,847,507    |      | 1998-12-08 | Butterworth et al. |       |              |                               |
|  | US 3,691,482    |      | 1972-09-12 | Pinnow et al.      |       |              |                               |
|  | US              |      |            |                    |       |              |                               |

## FOREIGN PATENT DOCUMENTS

|   | Office  | DOCUMENT<br>NUMBER | Kind       | DATE       | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION |    |
|---|---------|--------------------|------------|------------|---------|-------|--------------|-------------|----|
|   |         |                    |            |            |         |       |              | YES         | NO |
| <div>AW</div> <div>AW</div> <div>AW</div> <div>AW</div> <div>AW</div> <div>AW</div> <div>AW</div> <div>AW</div> | JP      | 01179471           | A          | 1989-07-17 | JAPAN   |       |              | ABS         |    |
|   | JP      | 5043913            | C1         | 1975-04-21 | JAPAN   |       |              |             |    |
|   | JP      | 554898             | A          | 1980-01-14 | JAPAN   |       |              |             |    |
|   | JP      | 09027642           | A          | 1997-01-28 | JAPAN   |       |              | ABS         |    |
|   | JP      | 08007614           | A          | 1996-01-12 | JAPAN   |       |              | ABS         |    |
|   | JP      | 07176794           | A          | 1995-07-14 | JAPAN   |       |              | ABS         |    |
|   | JP      | 07099345           | A          | 1995-04-11 | JAPAN   |       |              | ABS         |    |
|   | JP      | 05152609           | A          | 1993-06-18 | JAPAN   |       |              | ABS         |    |
| JP  | 6220237 | A                  | 1987-01-28 | JAPAN      |         |       |              |             |    |

## OTHER DOCUMENTS

(Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume:issue number(s), publisher, city and/or country where published.)

|    |   |
|----|---|
| AW | Glasse et al., Applied Physics Letters, Vol. 11, No. 2, pp. 53-54 (1967)<br>no month                                    |
| AW | Hoffman, Journal of Ies, pp. 89-91 (1977)<br>no month   |
| AW | Nakamura, SPIE, Vol. 3002, pp. 26-35 (1997)<br>no month   |
| AW | "SIMENS SMT-TOPLED fur die Oberflächenmontage" Frank Mollmer et al. Simens<br>Components, 29 (1991) Hfet 4.<br>no month |

|                       |                           |
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| EXAMINER<br><i>AW</i> | DATE CONSIDERED<br>3/5/05 |
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|---------------------|-----------------|------|------------|--------------------|-------|--------------|-------------------------------|
| <i>DN</i>           | US 4,550,256    |      | 1985-10-29 | Berkstesser et al. |       |              |                               |
| <i>DN</i>           | US 4,716,337    |      | 1987-12-29 | Huiskes et al.     |       |              |                               |
| <i>DN</i>           | US 5,471,113    |      | 1995-11-28 | De Backer et al.   |       |              |                               |
|                     | US              |      |            |                    |       |              |                               |
|                     | US              |      |            |                    |       |              |                               |
|                     | US              |      |            |                    |       |              |                               |
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|                     | US              |      |            |                    |       |              |                               |

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|-----------|--------|--------------------|------|------------|---------|-------|--------------|-------------|----|
|           |        |                    |      |            |         |       |              | YES         | NO |
| <i>DN</i> | WO     | 9750132            | A1   | 1997-12-31 | PCT     |       |              |             |    |
|           | WO     | 9812757            | A1   | 1998-03-26 | PCT     |       |              |             |    |
|           | JP     | 5079379            |      | 1973-11-24 | JAPAN   |       |              | ABS         |    |
|           | JP     | 742152             |      | 1995-07-21 | JAPAN   |       |              | ABS         |    |
|           | JP     | 4717684            |      | 1972-09-09 | JAPAN   |       |              | X           |    |
|           | JP     | 491221             |      | 1974-01-12 | JAPAN   |       |              | X           |    |
|           | JP     | 49112577           |      | 1974-10-26 | JAPAN   |       |              | ABS         |    |
|           | JP     | 62189770           |      | 1986-02-15 | JAPAN   |       |              | ABS         |    |
| <i>DN</i> | JP     | 291980             |      | 1988-09-29 | JAPAN   |       |              | ABS         |    |

## OTHER DOCUMENTS

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|           |   |
|-----------|---|
| <i>DN</i> | "GaPnp Contact Blue/Ultraviolet light Emitting Diode", H. Amano et al., Applied Physics, Vol. 20, No. 2, pp. 163-166 (1991) <i>no month</i>                                     |
| <i>DN</i> | "Phosphors Based on Rare-Earths, A New Era in Fluorescent Lighting", B.M.J. Smets, Materials Chemistry and Physics, 16 pp. 283-299 (1987) <i>no month</i>                       |
| <i>DN</i> | "A New Phosphor for Flying-Spot Cathode-Ray Tubes for Color Television: Yellow Emitting..", G. Blasse et al., App. Phys. Lett. Vol. 11, No. 2, pp. 53-55 (1967) <i>no month</i> |
| <i>DN</i> | Tadao MIURA, ELECTRONICS ENGINEERING, "High-intensity White Backlighting for LCD of Car Audios", July 1996, Vol. 38, No. 7, pp. 55-58   |

|   |                                  |
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| EXAMINER<br><i>Joseph W. Elton</i>  | DATE CONSIDERED<br><i>3/5/05</i> |
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Form PTO-1449

10/669402

ATTY DOCKET NO.  
0020-5147PAPPLICATION NO.  
New-Rule 53(b)  
Div. of  
09/458,024INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

(Use several sheets if necessary)

APPLICANT  
Yoshinori SHIMIZU et al.FILING DATE  
July 1, 2003GROUP  
2879

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL | DOCUMENT NUMBER | Kind | DATE | NAME | CLASS | SUB<br>CLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|-----------------|------|------|------|-------|--------------|-------------------------------|
|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |
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|                     | US              |      |      |      |       |              |                               |
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## FOREIGN PATENT DOCUMENTS

|    | Office | DOCUMENT<br>NUMBER | Kind | DATE       | COUNTRY       | CLASS | SUB<br>CLASS | TRANSLATION |    |
|----|--------|--------------------|------|------------|---------------|-------|--------------|-------------|----|
|    |        |                    |      |            |               |       |              | YES         | NO |
| 2w | JP     | 5152609            | A    | 1993-06-18 | JAPAN         |       |              | ABS         |    |
|    | JP     | 5183189            | A    | 1993-07-23 | JAPAN         |       |              | ABS         |    |
|    | JP     | 863119             |      | 1996-03-08 | JAPAN         |       |              | ABS         |    |
|    | JP     | 10036835           | A    | 1998-02-10 | JAPAN         |       |              | ABS         |    |
|    | JP     | 49106283           |      | 1972-12-27 | JAPAN         |       |              | ABS         |    |
|    | JP     | 5245181            |      | 1977-10-14 | JAPAN         |       |              | ABS         |    |
|    | GB     | 1589964            |      | 1981-05-20 | GREAT BRITAIN |       |              |             |    |
|    | JP     | 5441660            |      | 1979-12-05 | JAPAN         |       |              | X           |    |
| 2w | JP     | 5472484            |      | 1978-11-07 | JAPAN         |       |              | ABS         |    |

## OTHER DOCUMENTS

(Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.

|    |  |          |
|----|--|----------|
| 2w | J.M. Robertson, et al., "Colourshift of the Ce <sup>3+</sup> Emission in Monocrystalline Epitaxially Grown Garnet Layers", 1981 Philips J. Res. 36, pp. 15-30  | no month |
| 2w | W.W. Holloway, Jr. et al., "Optical Properties of Cerium-Activated Garnet Crystals", 1969 Journal of the Optical Society of America, Vol. 59, No. 1, pp. 60-63 | no month |
| 2w | WUSTLICH MIKRO-/OPTO-ELEKTRONIK GMBH (1994/1995)   | no month |
|    |  |          |

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|-----------|--------|--------------------|------|------------|---------|-------|--------------|-------------|----|
|           |        |                    |      |            |         |       |              | YES         | NO |
| <i>DN</i> | JP     | 5950455            |      | 1984-04-01 | JAPAN   |       |              | ABS         |    |
|           | JP     | 324692             |      | 1991-03-14 | JAPAN   |       |              | ABS         |    |
|           | JP     | 463162             |      | 1992-05-29 | JAPAN   |       |              | ABS         |    |
|           | JP     | 463163             |      | 1992-05-29 | JAPAN   |       |              | X           |    |
|           | JP     | 563068             |      | 1993-08-20 | JAPAN   |       |              | ABS         |    |
|           | JP     | 8170077            |      | 1996-07-02 | JAPAN   |       |              | ABS         |    |
|           | JP     | 5331584            |      | 1978-03-24 | JAPAN   |       |              |             |    |
|           | JP     | 60144381           |      | 1985-07-30 | JAPAN   |       |              | ABS         |    |
| <i>DN</i> | JP     | 62167387           |      | 1987-07-23 | JAPAN   |       |              | ABS         |    |

**OTHER DOCUMENTS**

(Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)

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EXAMINER

*Joseph W. Eli*

DATE CONSIDERED

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|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |
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|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |
|                     | US              |      |      |      |       |              |                               |

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|----|--------|--------------------|------|------------|---------|-------|--------------|-------------|----|
|    |        |                    |      |            |         |       |              | YES         | NO |
| an | JP     | 60144381           |      | 1985-07-30 | JAPAN   |       |              | ABS         |    |
|    | JP     | 62167387           |      | 1987-07-23 | JAPAN   |       |              | ABS         |    |
|    | JP     | 6208845            |      | 1994-07-26 | JAPAN   |       |              | ABS         |    |
|    | JP     | 06177423           |      | 1994-06-24 | JAPAN   |       |              | ABS         |    |
|    | JP     | 06260680           |      | 1994-09-16 | JAPAN   |       |              | ABS         |    |
| an | JP     | 06268257           |      | 1994-09-22 | JAPAN   |       |              | ABS         |    |
|    |        |                    |      |            |         |       |              |             |    |
|    |        |                    |      |            |         |       |              |             |    |

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*Joseph M. Kelly*

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